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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/722,299

11/28/2000

Francois Panzani

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

NGUYEN, HUY D

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

02/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/722,299	Applicant(s) PANZANI ET AL.	
	Examiner HUY D. NGUYEN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 6, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson et al. (US Patent No. 5,736,959) in view of Schwendeman et al. (US Patent No. 5,257,019).

Regarding claim 1, Patterson et al. teaches a transmit-receive system on board a satellite for a telecommunication system within a region covered by said system, wherein said region includes a plurality of areas (e.g., areas around mobile phones with radius, say, 1 m) including isolated areas, said system receives calls from any area and transmits said calls to the same area or another area (inherent), said system comprising: means for combining signals from said plurality of areas into groups (i.e., means for combining signals from mobile phones in earth-fixed cells) and routing means for routing calls from any one of said groups to itself, or to another of said groups (inherent), wherein each group (i.e., earth-fixed cell) is allocated all of the communication resources of said region (e.g., The Earth-fixed cell technique offers enormous spectral efficiency, since 100% of the frequencies between the cells and between the satellites 12 are constantly reused, see col. 28, lines 52-55). Patterson et al. does not specifically teach each area covered by a respective antenna on board said satellite. The preceding limitation is taught in Schwendeman et al. (see Fig. 1 and col. 2, lines 40-43). It would have been obvious to have

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implemented the system of Patterson et al. with the teaching of Schwendeman et al. in order to efficiently reuse the frequencies.

Regarding claim 4, Patterson et al. teaches the system claimed in claim 1 further comprising switching means for modifying the composition of said groups so that at least one area can be transferred from one group to another (e.g., a subscriber being served by one satellite must switch to another beam in the same satellite or to a second satellite because the first is moving out of range below the local horizon).

Regarding claim 6, Patterson et al. teaches the system claimed in claim 5 wherein said means for grouping said signals of several areas use a beam-forming network (see fig. 2 and col. 6, lines 9-17).

Regarding claim 10, Patterson et al. teaches the system claimed in claim 9 wherein said resources further include polarizations (see col.11, lines 55-57).

Regarding claim 11, Patterson et al. teaches the system claimed in claim 1 wherein at least some of said areas corresponding to the same group are geographically far apart (in a cell, there're areas far apart from each other).

3. Claims 2, 5, 7-9, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson et al. in view of Schwendeman et al..

Regarding claim 2, the examiner takes official notice that hardwired has been known in the art. It would have been obvious to have had the routing means hardwired to avoid RF interference (MPEP 2144.03).

Regarding claim 5, it would have been obvious to have had the combiner as part of an antenna system since it has been held that forming in one piece an article which has formerly

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been formed in two piece and put together involves only routine skill in the art. *In re Stevens*,, 101 USPQ 284 (CCPA 1954).

Regarding claim 7, it would have been obvious to have had grouping means as part of repeater means since it has been held that forming in one piece an article which has formerly been formed in two piece and put together involves only routine skill in the art. *In re Stevens*,, 101 USPQ 284 (CCPA 1954).

Regarding claims 8-9, it would have been obvious to have allocated communication resources so that signals received by a first group from a second group are distinguished from signals received from a third group by virtue of using different resources (i.e., frequency bands) in order to prevent signal interference between groups (MPEP 2144.03)

Regarding claims 12-13, it would have been a matter of choice to have a certain number of areas in a cell since the invention would perform equally well (see MPEP 2144.03).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patterson et al. in view of Schwendeman et al. and Chao (US Patent No. 6,215,776).

Regarding claim 3, Patterson et al. in view of Schwendeman et al. does not teach that the areas are allocated to said groups in such a manner that the traffic is substantially the same from one group to another. The preceding limitation is taught in Chao (see col. 9, lines 18-27). It would have been obvious to have implemented the system of Patterson et al. in view of Schwendeman et al. with the teaching of Chao in order to use the resource efficiently.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY D. NGUYEN whose telephone number is (571)272-7845. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huy D Nguyen/
Examiner, Art Unit 2617

/Sharad Rampuria/
Primary Examiner, Art Unit 2617